

**CLAIMS**

We Claim:

5        1. A computer-implemented method for presenting a user interface for construction of an executable sequence to automate a decision-making process based on a collection of data, the method comprising:

      displaying representations of a plurality of discrete executable directives encapsulating logic associated with the decision-making process, wherein at least 10 one of the discrete executable directives defines a query against the collection of data, at least one of the discrete executable directives defines an analysis directive to analyze information derived from the query, and at least one of the discrete executable directives defines a distribution directive to distribute information based on the analysis; and

15        accepting user input to assemble a set of the discrete executable directives into an executable sequence.

20        2. A computer-readable medium comprising computer-executable instructions for performing the method of claim 1.

25        3. The method of claim 1 wherein the executable sequence is operable to distribute results of interim processing.

4. The method of claim 1 wherein the executable sequence is operable 25 to generate a targeted personal notification.

5. The method of claim 1 wherein the executable sequence is operable to distribute a presentation of information comprising displayed elements, wherein a recipient of the presentation of information can drill down to detail not shown in the presentation by activating one of the displayed elements.

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6. The method of claim 1 wherein the analysis directive comprises a filter.

7. The method of claim 1 wherein the analysis directive comprises  
10 arbitrary executable code entered at sequence definition time.

8. The method of claim 1 wherein at least one of the analysis directives is operable to analyze a user's reaction to information distributed by at least one of the distribution directives.

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9. The method of claim 1 wherein at least one of the analysis directives is operable to determine whether a user acknowledged information distributed by at least one of the distribution directives.

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10. The method of claim 1 wherein at least one of the analysis directives is operable to determine whether a user concurred with an identification of a root cause of a problem in information distributed by at least one of the distribution directives.

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11. The method of claim 1 wherein at least one of the analysis directives is operable to present a recommended course of action to resolve a problem.

12. The method of claim 1 wherein at least one of the analysis directives is operable to determine whether a user complied with a recommended course of action to resolve a problem.

5 13. The method of claim 1 wherein the directives encapsulate their respective logic.

14. The method of claim 1 wherein at least one distribution directive is operable to distribute information to a wireless device.

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15. The method of claim 1 wherein at least one distribution directive is operable to distribute information via email.

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16. The method of claim 1 wherein at least one distribution directive is operable to distribute information via a web page.

17. The method of claim 1 wherein the sequence comprises at least one gate.

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18. The method of claim 1 wherein lineage of the sequence is tracked to indicate one or more sequences on which the sequence is based.

19. The method of claim 1 wherein at least one of the directives is pluggable.

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20. The method of claim 1 further comprising:  
executing the sequence, wherein during execution of the sequence,  
responsive to detecting a plurality of inputs to an analysis directive, instantiating  
multiple instances of the analysis directive for accepting the inputs.

21. A computer-implemented method of presenting a user interface for creating executable sequences from processing directives, the method comprising:

- presenting a first display area comprising graphical representations of 5 available processing directives, wherein the processing directives comprise query directives, analysis directives, and distribution directives;
- presenting a second display area comprising graphical representations of processing directives selected as included in the executable sequence;
- depicting coupled processing directives as graphically linked and 10 conditionally coupled processing directives as graphically linked with a depiction of a condition associated with the link;
- accepting a drag and drop operation to drop a processing directive from the first display area into the second display area; and
- responsive to the drag and drop operation, adding the processing directive to 15 the sequence.

22. A computer-implemented method of defining query-based processing to be performed for a collection of data, the method comprising:

- selecting a plurality of processing directives, wherein the processing 20 directives are operable to generate, process, and distribute information from the collection of data, at least one of the processing directives is a query, and at least one of the processing directives is a template;
- associating the processing directives and the parameters into an executable sequence; and
- specifying parameters for binding to the template to be used when the 25 processing directives are executed.

23. The method of claim 22 wherein at least one of the processing directives is a template selected from a menu.

24. The method of claim 22 wherein each of the processing directives is selected from a menu.

5 25. The method of claim 22 further comprising:  
specifying one or more destinations for the results of the processing  
directives; and  
associating the destinations with the executable sequence.

10 26. The method of claim 22 further comprising:  
accepting scheduling information indicating when the executable sequence is  
to be periodically executed; and  
periodically executing the sequence according to the scheduling information.

15 27. A method of selectively distributing information from a data  
warehouse, the method comprising:  
accepting a set of queries to be periodically run against the data warehouse,  
wherein the queries generate result sets;  
accepting a set of filters to selectively identify result sets of interest out of  
20 the result set generated from the queries;  
accepting a set of distribution instructions indicating how the result sets of  
interest are to be distributed.

25 28. The method of claim 27 wherein at least one query out of the set of  
queries, at least one filter out of the set of filters and associated with the query, and  
at least one distribution instruction out of the set of distribution instructions and  
associated with the filter are combinable into a configurable unit.

29. The method of claim 28 wherein the configurable unit is sharable among a plurality of users.

30. The method of claim 27 further comprising:  
5 accepting an indicating that the configurable unit is to be posted for sharing by other users.

31. The method of claim 28 wherein the configurable unit comprises a plurality of filters to be run in succession.

10 32. The method of claim 27 further comprising:  
accepting an indicating that one of the queries is to be posted for sharing by other users.

15 33. A computer-based system for presenting a user interface for construction of an executable sequence to automate a decision-making process based on a collection of data, the system comprising:  
a user interface element for accepting user input to configure a plurality of discrete executable directives encapsulating logic associated with the decision-making process, wherein at least one of the discrete executable directives defines a query against the collection of data, at least one of the discrete executable directives defines an analysis directive to analyze information derived from the query, and at least one of the discrete executable directives defines a distribution directive to distribute information based on the analysis; and  
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25 a user interface element for associating the plurality of discrete executable directives into an executable sequence.

34. The system of claim 33 further comprising:  
a repository for storing configuration of the executable sequence.

35. The system of claim 34 further comprising:  
a sequence executer operable to access the repository and execute the  
sequence.

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36. A computer user interface for entering a combined unit of querying,  
filtering, and distribution, the user interface comprising:  
means for entering a series of steps, wherein at least one of the steps is a  
query, at least one of the steps is a filter for filtering results generated based on the  
10 query, and at least one of the steps is a distribution directive indicating how the  
filtered results are to be distributed; and  
means for scheduling the steps for automatic periodic execution.

37. A computer user interface for defining query-based processing to be  
15 performed on a collection of data, the system comprising:

a presentation of available processing directives for generating information  
from the collection of data, wherein at least one of the processing directives is a  
query, at least one of the processing directives is a template, and a plurality of  
processing directives can be selected;

20 a presentation for accepting one or more parameters to be bound to the  
template; and

a presentation for naming the processing directives and the parameters as an  
executable sequence.

U.S. GOVERNMENT USE

38. A computer user interface for designating an executable sequence for providing an analysis of a collection of data, the computer user interface comprising:

- 5 a presentation of a list of queries, from which a user can select one or more queries to be added to the sequence;
- 10 a presentation of a list of analysis directives, from which a user can select one or more analysis directives to be added to the sequence to be performed on the results of the selected queries to generate analysis results; and
- 15 a presentation of a list of distribution directives, from which a user can select one or more distribution directives to be added to the sequence and specifying how the analysis results are to be distributed.

39. The computer user interface of claim 38 further comprising:  
15 a presentation of scheduling options by which a user can schedule the executable sequence for periodic execution.

40. A computer-readable medium for storing an executable sequence for execution by a computer system to perform query-based processing on a collection 20 of data, the sequence comprising:

- information indicating a plurality of processing directives for generating information from the collection of data, wherein at least one of the processing directives is a query, at least one of the processing directives is a template, and a plurality of processing directives can be selected; and
- 25 information indicating one or more parameters to be bound to the template.